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John S. Beulick
Armstrong Teasdale LLP
Suite 2600
One Metropolitan Square
St. Louis, MO 63102

EXAMINER

PHAM, THOMAS K

ART UNIT

PAPER NUMBER

2121

14

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/731,141

Applicant(s)

SEXTON, DANIEL W.

Examiner

Thomas K Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Quotations of U.S. Code Title 35

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,282,454 ("Papadopoulos") in view of U.S. Patent No. 6,658,254 ("Purdy").

Referring to claim 1

Papadopoulos teaches a method for controlling and monitoring an industrial controller using a Web interface, utilizing a system including a programmable logic controller (PLC), a local

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server, said method comprising the steps of: monitoring and controlling a system using a programmable logic controller (PLC) (col. 4 lines 36-46, "Associated with the PLC ... information of the PLC 32"); exchanging communications between the PLC and a local server (col. 4 lines 21-35, "The web server 30 ... through the web server 30") displaying information from the PLC (col. 8 lines 37-43, "The different request ... Ethernet statistics and others"); transmitting commands from client interface to the PLC (col. 4 lines 30-35, "The client interface allows ... through the web server 30") but does not teach a portable wireless device connecting a wireless Internet Service Provider (WISP) for exchanging communications utilizing the Internet. However, Purdy teaches a portable wireless device connecting to the internet using a wireless Internet Service Provider (WISP) to exchange communications between the portable wireless device and Multimedia Terminal utilizing the Internet (col. 3 lines 24-31, "cryptography is utilized ... a wireless network, etc.") for the purpose of allowing authentic, private and secure communications. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the wireless communication device through wireless ISP of Purdy with the industrial controller of Papadopoulos because it would provide for controlling and monitoring the PLC with a portable wireless device via the internet using a wireless ISP instead of a using normal Point-to-Point protocol for the purpose of allowing authentic, private and secure communications.

Regarding claim 2

Papadopoulos teaches a step of exchanging communications between the PLC server and the local server further comprises the step of sending PLC operational data from the PLC to the local server (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt").

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Regarding claim 3

Papadopoulos teaches a step of exchanging communications between the local server and the ISP server further comprises the step of sending the PLC operational data from the local server to the ISP server (col. 9 lines 56-67, "A user at a remote ... previously shown in Table 1"). Purdy teaches a step of exchanging communications between the local server and the wireless ISP server (col. 4 lines 20-37, "Each of first PID ... wireless WAN, radio transmission, etc.)").

Regarding claim 4

Papadopoulos teaches sending the monitoring device operational data from the ISP server to the browser, and displaying the monitoring device operational data on the client display (col. 4 lines 1-4, "The browser 10 will send ... the process control system 6") but does not teach the portable wireless communication device includes a display for displaying information, exchanging communication between the wireless ISP server and the wireless portable device. However, Purdy teaches the portable wireless communication device includes a display for displaying information, exchanging communication between the wireless ISP server and the wireless portable device (col. 4 lines 20-37, "Each of first PID ... wireless WAN, radio transmission, etc.)"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the wireless communication device through wireless ISP of Purdy with the industrial controller of Papadopoulos because it would provide for controlling and monitoring the PLC with a portable wireless device via the internet using a wireless ISP instead of a using normal Point-to-Point protocol for the purpose of allowing authentic, private and secure communications.

Regarding claim 5

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Papadopoulos teaches inputting at least one PLC command (col. 4 lines 33-35, "Controlling the PLC 32 ... through the web server 30"); inputting PLC operational response data using the input device (col. 2 lines 54-62, "The Web interface provides ... through the Internet access"); sending the at least one PLC command from the client interface to the ISP server (col. 4 lines 30-35, "The client interface ... through the web server 30"); and sending the PLC operational response data from the client interface to the ISP server (col. 4 lines 36-41, "Associated with the PLC 32 ... and receive the response") but does not teach the wireless portable communication device includes an input device for inputting information to the wireless portable communication device, exchanging communication between the wireless ISP server and the wireless portable device. However, Purdy teaches the wireless portable communication device includes an input device for inputting information to the wireless portable communication device (col. 1 lines 23-33, "A portable intelligent ... such as another Palm V"), exchanging communication between the wireless ISP server and the wireless portable device (col. 4 lines 20-37, "Each of first PID ... wireless WAN, radio transmission, etc.")). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the wireless communication device through wireless ISP of Purdy with the industrial controller of Papadopoulos because it would provide for controlling and monitoring the PLC with a portable wireless device via the internet using a wireless ISP instead of a using normal Point-to-Point protocol for the purpose of allowing authentic, private and secure communications.

Regarding claim 6

Papadopoulos teaches sending the at least one PLC command from the ISP server to the local server using the Internet (col. 4 lines 30-35, "The client interface ... through the web server 30");

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and sending the PLC operational response data from the ISP server to the local server using the Internet (col. 4 lines 36-41, "Associated with the PLC 32 ... and receive the response"). Purdy teaches a step of exchanging communications between the local server and the wireless ISP server (col. 4 lines 20-37, "Each of first PID ... wireless WAN, radio transmission, etc.)").

Regarding claim 7

Papadopoulos teaches a step of exchanging communications between the PLC and the local server further comprises the steps of: sending the at least one PLC command from the local server to the PLC (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt"); and sending the PLC operational data from the local server to the PLC (col. 9 lines 17-29, "The operating system 44 ... processing the request").

Regarding claim 8

Papadopoulos teaches controlling an operation of the PLC using the at least one PLC command (col. 6 lines 35-45); and controlling the operation of the PLC using the PLC operational response data (col. 9 lines 17-29, "The operating system 44 ... processing the request").

Regarding claim 9

Papadopoulos teaches a system for controlling and monitoring an industrial controller comprising: a programmable logic controller (PLC) (col. 4 lines 36-46); a local server configured to exchange communication with said PLC (col. 4 lines 21-35) the client interface and the PLC configured to exchange information (col. 4 lines 30-35, "The client interface allows ... through the web server 30") but does not teach a wireless Internet Service Provider (ISP) server configured to exchange communication with said local server using the Internet; a wireless user communication device configured to exchange communication with said wireless ISP server.

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However, Purdy teaches a portable wireless device connecting to the internet using a wireless Internet Service Provider (WISP) to exchange communications between the portable wireless device and Multimedia Terminal utilizing the Internet (col. 3 lines 24-31, "cryptography is utilized ... a wireless network, etc."). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the wireless communication device through wireless ISP of Purdy with the industrial controller of Papadopoulos because it would provide for controlling and monitoring the PLC with a portable wireless device via the internet using a wireless ISP instead of a using normal Point-to-Point protocol for the purpose of allowing authentic, private and secure communications.

Regarding claim 10

Papadopoulos teaches local server further configured to access PLC operational data from said PLC (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt").

Regarding claim 11

Papadopoulos teaches local server further configured to communicate the PLC operational data to the ISP server (col. 4 lines 21-35, "The web server 30 ... through the web server 30"). Purdy teaches a step of exchanging communications between the local server and the wireless ISP server (col. 4 lines 20-37, "Each of first PID ... wireless WAN, radio transmission, etc.)").

Regarding claim 12

Papadopoulos teaches ISP server further configured to communicate the PLC operational data to the web browser (col. 4 lines 43-46, "Using a web browser ... information of the PLC 32"). Purdy teaches exchanging communication between the wireless ISP server and the wireless

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portable device (col. 4 lines 20-37, “Each of first PID ... wireless WAN, radio transmission, etc.)”)

Regarding claim 13

Papadopoulos teaches communication with the PLC operational data. Purdy teaches wireless user communication device further configured to display multimedia data (col. 4 lines 20-24, “Each of first PID ... via IR port 137”).

Regarding claim 14

Papadopoulos teaches client interface further configured to initiate at least one PLC command and communicate the PLC command to the ISP server (col. 4 lines 30-35, “The client interface ... through the web server 30”). Purdy teaches exchanging communication between the wireless ISP server and the wireless portable device (col. 4 lines 20-37, “Each of first PID ... wireless WAN, radio transmission, etc.)”).

Regarding claim 15

Papadopoulos teaches client interface further configured to initiate PLC operational response data and communicate the PLC operational response data to said ISP server (col. 4 lines 36-41, “Associated with the PLC 32 ... and receive the response”). Purdy teaches exchanging communication between the wireless ISP server and the wireless portable device (col. 4 lines 20-37, “Each of first PID ... wireless WAN, radio transmission, etc.)”).

Regarding claim 16

Papadopoulos teaches ISP server further configured to communicate the at least one PLC command and the PLC operational response data to said local server (col. 4 lines 36-41, “Associated with the PLC 32 ... and receive the response”). Purdy teaches exchanging

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communication between the wireless ISP server and the wireless portable device (col. 4 lines 20-37, "Each of first PID ... wireless WAN, radio transmission, etc.)").

Regarding claim 17

Papadopoulos teaches local server further configured to communicate the at least one PLC command and the PLC operational response data to the PLC (col. 4 lines 39-41, "The web server 30 ... receive the response").

Regarding claim 18

Purdy teaches wireless user communication device comprises: a user interface configured for an input of information to said wireless communication device (col. 1 lines 23-33, "A portable intelligent ... such as another Palm V"); and a display configured to display the user input information and information received by the wireless communication device from the wireless ISP server (col. 4 lines 20-24, "Each of first PID ... via IR port 137").

Regarding claim 19

Papadopoulos teaches communication with the PLC operational data but does not teach formatting and processing operational data into a wireless markup language. However, Purdy teaches exchanging communication between the wireless ISP server and the wireless portable device (col. 4 lines 20-37, "Each of first PID ... wireless WAN, radio transmission, etc.")). It would have been obvious to one of ordinary skill in the art at the time of the invention to format and process the operational data into the wireless markup language in order to view the data using Wireless Application Protocol (WAP), which enable wireless portable devices to communicate over the Internet.

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Regarding claim 20

Papadopoulos teaches communication with the PLC operational data but does not teach applying a wireless application protocol to the PLC operational data. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a wireless application protocol to the PLC operational data for viewing over the Internet where cites are formatted with wireless markup language.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874, Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor *Mr. Anthony Knight* at (703) 308-3179.

Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the 4th floor)**, or fax to the **official fax number (703) 872- 9306**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thomas Pham
Patent Examiner

TP

May 6, 2004


Anthony Knight
Supervisory Patent Examiner
Group 3600